Remarks

1. Introduction

This is in response to the Office Action dated August 10, 2005. The Office Action first rejected claims 1 and 18-19 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action next rejected claim 1 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,785,473 to Sasaki et al. ("Sasaki"). The Office Action next rejected claims 1-2, 7-13 and 15 under 35 U.S.C. §103(a) as being obvious over Spiekman et al., a Flexible Metro WDM Ring Using Wavelength-Independent Subscriber Equipment to Share Bandwidth, OFC, paper PD38, March 9, 2000 ("Spiekman") in view of US. Patent No. 5,801,861 to Majima ("Majima"). The Office Action next rejected claims 14 and 16-18 under 35 U.S.C. §103(a) as being obvious over Spiekman in view of Majima or Sasaki, further in view of US Patent No. 6,252,881 to Samoylenko ("Samoylenko"). The Office Action next rejected claims 19-20 under 35 U.S.C. §103(a) as being obvious over Spiekman in view of Majima or Sasaki, further in view of Samoylenko, and further in view of US Patent No. 5,886,801 to Van Deventer ("Van Deventer"). The Office Action next rejected claim 21 under 35 U.S.C. §103(a) as being obvious over Spiekman in view of Majima or Sasaki, further in view of Samoylenko, and further in view of US Patent No. 5,886,801 to Van Deventer ("Van Deventer").

Claims 1-2 and 7-21 remain under consideration.

2. Rejection: 35 U.S.C. §112, second paragraph

The Office Action first rejected claims 1 and 18-19 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claims 1, 18 and 19.

Regarding claim 1, the Office Action states that the claim 1 element of "a plurality of user terminals, each user terminal coupled to an end station . . ." is not clear. Applicants have amended claim 1 to claim "one or more wavelengths which can be shared by a plurality of user terminals, each user terminal in said plurality of user terminals coupled to an end station." Thus, it is clear in claim 1 that each of the terminals in a plurality of terminals is coupled to an end station. This element is clearly taught by the specification. In particular, as discussed at

paragraph [29] of the specification, the architecture disclosed in the present application may have a plurality of "subscribers (having user terminals) at End Stations (ES)". As is described at paragraph [38], an ES may be, for example, "a computer facility" which may have multiple associated user terminals associated with those subscribers. Accordingly, the above claim 1 element, as amended, is clear in light of the specification. Applicants request the withdrawal of this rejection.

Regarding claims 18 and 19, each of those claims depends on claim 16 which, in turn, depends on claim 14. Claim 14 has been amended to depend on claim 11, instead of claim 10. Claim 11 contains the limitation "a fiber optical feeder ring" and, therefore, adequate antecedent basis for all terms in claims 18 and 19 is now present. Accordingly, the rejections of claims 18 and 19 have been overcome. Applicants request the withdrawal of these rejections.

3. Rejection: 35 U.S.C. §102(e) – Sasaki

The Office Action next rejects claim 1 under 35 U.S.C. §102(e) over the Sasaki reference. In order for a claim to be anticipated under 35 U.S.C. §102, **each and every** limitation of the claim must be found either expressly or inherently in a single prior art reference. PIN/NIP, Inc. v. Platte Chem. Co., 304 F.3d 1235, 1243 (Fed. Cir. 2002). For the following reasons, Sasaki fails to teach each of the elements of claim 1. Therefore, Applicants request the withdrawal of the rejection under 35 U.S.C. §102(e).

Sasaki teaches a WDM network in general having a plurality of nodes and a plurality of sub-networks. The general teachings of Sasaki involve methods of fault detection and correction in a WDM network, which may be a ring network, as discussed in Sasaki at column 3, line 61 – column 4, line10.

The present application teaches a WDM ring network architecture wherein the only carrier signals generated in the network originate from a single Network Node (NN). Selected wavelengths from a carrier signal form a virtual ring that operates independently of other virtual rings formed by different wavelengths of light. The NN forms and sends along the feeder ring (1) downstream data packets, (2) 'optical chalkboard' packets . . . and (3) control bits or signals." As is shown in FIG. 1 and as is described at page 6, paragraph [29], the NN has WDM sources and receivers and functions to send WDM signals along the feeder ring to Access Nodes (ANs) which have, for example, Waveguide Grating Routers (WGRs). Pairs of ports in the WGRs define distribution loops in which a single wavelength, forming a distribution ring, can be

accessed by one or more End Stations (ESs) in order to provide service to user terminals. The WGSs act, for example, as static Optical Add-Drop Multiplexers (OADMs) that demultiplex the wavelengths on the feeder ring and directs them to users connected to ESs on the distribution ring and then multiplex wavelengths back onto the feeder ring.

Thus, as is shown in FIGs 2A and 2B and as is described in the associated description beginning at page 7, paragraph [32], optical signals are sent for example, in a unidirectional fashion from the NN along the feeder ring to ANs where selected wavelengths are demultiplexed for distribution to ESs via the distribution rings. The aforementioned optical chalkboard packets are, for example, packets generated at the NN that consist of, illustratively, all 1's. If permitted to do so (e.g., as indicated in the aforementioned control bits in the packet stream) a user terminal connected to the ESs modifies these optical chalkboard packets to modulate data from a user onto the carrier. The modulated signal is then amplified by, for example, a semiconductor optical amplifier (SOA), before being multiplexed and transmitted back along the distribution ring. Those signals are then combined again by the WGR at the AN and then forwarded in the upstream direction to other ANs and, ultimately, the NN.

The Office Action relies on column 4, lines 30-33 of Sasaki as teaching the claim 1 element of sending at least one optical chalkboard packet consisting of a recognizable pattern. That portion of Sasaki, however, teaches a supervisory control information region for (the) partial lightwave path defined as part of the overhead of (the) main-signal frame. As taught by Sasaki, fault control information may be included in this region.

This is different from the optical chalkboard packet as taught by the present application and as claimed in claim 1. Specifically, as taught at paragraph [28] of the present application, an optical chalkboard packet is a packet containing a "pattern that is recognizable for the purposes of control signals, maintaining or establishing timing or relaxing the low-frequency performance requirements of the lasers, detectors and associated electronic circuitry. As is also taught in paragraph [28], the optical chalkboard packet may contain, for example, all "1's" or alternating "1's" and "0's". As contemplated by the present application, these chalkboard packets are used by ES's, which write data to them if permitted to do so.

The supervisory control information region as taught at the cited passage of the Sasaki reference does not teach such an optical chalkboard packet or that it may contain a recognizable pattern, as described in the present application and claimed in claim 1. Accordingly, Sasaki does not teach this element of claim 1 and, therefore, claim 1 is not anticipated by that reference.

Claim 1, therefore, is allowable. It follows that claims 2 and 7-21 are allowable as being dependent upon an allowable base claim.

3. Rejections: 35 U.S.C. §103(a) – Spiekman in view of various references

The Office Action rejects claims 1-2 and 7-21under 35 U.S.C. §103(a) over Spiekman in view of various references. The Spiekman reference is cited by the Office Action in the rejection under 35 U.S.C. §103(a) as prior art under 35 U.S.C. §102(a). Three of the coinventors of the present application, Mr. Nicholas J. Frigo, Mr. Patrick P. Iannone and Mr. Kenneth C. Reichmann are coauthors of the Spiekman reference along with Mr. Alan H. Gnauck and Mr. Leonard H. Spiekman.

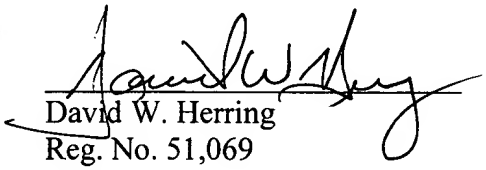
A rejection over a reference being used as prior art under 35 U.S.C. §102(a) can be overcome by the submission of a specific declaration by a coauthor applicant establishing that the reference is describing applicant's own work. Manual of Patent Examining Procedure (MPEP) §2132.01; *In re Katz*, 687 F.2d 450, 2215 USPQ 14 (CCPA 1982). Accordingly, the declarations of Mr. Iannone, Mr. Reichmann and Mr. Frigo are being submitted herewith pursuant to 37 CFR 1.132. In those declarations, each of the declarants states that the subject matter of the claimed invention is the applicants' own work and that Mr. Gnauck and Mr. Spiekman are not coinventors of the present application. Thus, to the extent the Spiekman reference discloses subject matter claimed in the present application, that subject matter is the coinventors' own work. Thus, the Spiekman reference is not prior art under 35 U.S.C. §102(a) with respect to the present application.

Accordingly, Applicants request the withdrawal of the rejections relying on Spiekman under 35 U.S.C. §103(a) and request that claims 1-2 and 7-21 be allowed.

Conclusion:

Applicants have amended claim 1 in response to the rejection under 35 USC §112, second paragraph. Applicants have traversed the rejections of claims 1-2 and 7-21 under 35 USC §102(e) and 35 USC §103(a). For the foregoing reasons, claims 1-2 and 7-21 are allowable over the cited references. Applicant requests allowance of all claims.

Respectfully submitted,



David W. Herring
Reg. No. 51,069
Attorney for Applicant
Tel.: 973-533-1616

Date: December 12, 2005

AT&T Corp.
Room 2A-207
One AT&T Way
Bedminster, NJ 07921